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0102

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OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/915,515A

DATE: 01/04/2002
TIME: 15:10:06

Input Set : A:\seq.txt
Output Set: N:\CRF3\01042002\I915515A.raw

1 <110> APPLICANT: Taylor, Garry
 2 Portner, Allen
 3 Takimoto, Toru
 4 Babu, Y. Sudhakar
 5 Rowland, R. Scott
 7 <120> TITLE OF INVENTION: Three Dimensional Structure of Paramyxovirus Hemagglutinin-Neuraminidase
 8 and Uses Thereof
 10 <130> FILE REFERENCE: 1663/00142
 12 <140> CURRENT APPLICATION NUMBER: US/09/915,515A
 12 <141> CURRENT FILING DATE: 2001-12-18
 12 <160> NUMBER OF SEQ ID NOS: 1
 14 <210> SEQ ID NO: 1
 16 <211> LENGTH: 577
 18 <212> TYPE: PRT
 20 <213> ORGANISM: Newcastle Disease Virus (Kansas Strain)
 22 <400> SEQUENCE: 1
 23 Met Asp Arg Ala Val Ser Gln Val Ala Leu Glu Asn Asp Glu Arg Glu
 24 1 5 10 15
 26 Ala Lys Asn Thr trp Arg Leu Ile Phe Arg Ile Ala Ile Leu Leu Leu
 27 20 25 30 35
 29 Thr Val Val Thr Leu Ala Thr Ser Val Ala Ser Leu Val Tyr Ser Met
 30 35 40 45 50
 32 Gly Ala Ser Thr Pro Ser Asp Leu Val Gly Ile Pro Thr Arg Ile Ser
 33 50 55 60 65
 35 Arg Ala Glu Glu Lys Ile Thr Ser Ala Leu Gly Ser Asn Gln Asp Val
 36 65 70 75 80
 38 Val Asp Arg Ile Tyr Lys Gln Val Ala Leu Glu Ser Pro Leu Ala Leu
 39 85 90 95 100
 41 Leu Asn Thr Glu Thr Ile Met Asn Ala Ile Thr Ser Leu Ser Tyr
 42 100 105 110 115
 44 Gln Ile Asn Gly Ala Ala Asn Asn Ser Gly trp Gly Ala Pro Ile His
 45 115 120 125 130
 47 Asp Pro Asp Phe Ile Gly Gly Ile Gly Lys Glu Leu Ile Val Asp Asn
 48 130 135 140 145
 50 Ala Ser Asp Val Thr Ser Phe Tyr Pro Ser Ala Phe Gln Glu His Leu
 51 145 150 155 160
 53 Asn Phe Ile Pro Ala Pro Thr Thr Gly Ser Gly Cys Thr Arg Ile Pro
 54 165 170 175 180
 56 Ser Phe Asp Met Ser Ala Thr His Tyr Cys Tyr Thr His Asn Val Ile
 57 180 185 190 195
 59 Leu Ser Gly Cys Arg Asp His Ser His Ser His Gln Tyr Leu Ala Leu
 60 195 200 205 210
 62 Gly Val Leu Arg Thr Thr Ala Thr Gly Arg Ile Phe Phe Ser Thr Leu
 63 210 215 220 225
 65 Arg Ser Ile Ser Leu Asp Asp Thr Gln Asn Arg Lys Ser Cys Ser Val
 66 225 230 235 240
 68 Ser Ala Thr Pro Leu Gly Cys Asp Met Leu Cys Ser Lys Val Thr Glu

ENTERED

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69					245					250					255		
71	Thr	Glu	Glu	Glu	Asp	Tyr	Asn	Ser	Ala	Val	Pro	Thr	Leu	Met	Ala	His	
72				260					265					270			
74	Gly	Arg	Leu	Gly	Phe	Asp	Gly	Gln	Tyr	His	Glu	Lys	Asp	Leu	Asp	Val	
75			275					280						285			
77	Thr	Thr	Leu	Phe	Glu	Asp	trp	Val	Ala	Asn	Tyr	Pro	Gly	Val	Gly	Gly	
78							295					300					
80	Gly	Ser	Phe	Ile	Asp	Gly	Arg	Val	trp	Phe	Ser	Val	Tyr	Gly	Gly	Leu	
81	305						310					315				320	
83	Lys	Pro	Asn	Ser	Pro	Ser	Asp	Thr	Val	Gln	Glu	Gly	Lys	Tyr	Val	Ile	
84							325					330			335		
86	Tyr	Lys	Arg	Tyr	Asn	Asp	Thr	Cys	Pro	Asp	Glu	Gln	Asp	Tyr	Gln	Ile	
87				340					345					350			
89	Arg	Met	Ala	Lys	Ser	Ser	Tyr	Lys	Pro	Gly	Arg	Phe	Gly	Gly	Lys	Arg	
90				355				360					365				
92	Ile	Gln	Gln	Ala	Ile	Leu	Ser	Ile	Lys	Val	Ser	Thr	Ser	Leu	Gly	Glu	
93				370				375					380				
95	Asp	Pro	Val	Leu	Thr	Val	Pro	Pro	Asn	Thr	Val	Thr	Leu	Met	Gly	Ala	
96	385					390					395					400	
98	Glu	Gly	Arg	Ile	Leu	Thr	Val	Gly	Thr	Ser	His	Phe	Leu	Tyr	Gln	Arg	
99					405					410					415		
101	Gly	Ser	Ser	Tyr	Phe	Ser	Pro	Ala	Leu	Leu	Tyr	Pro	Met	Thr	Val	Ser	
102				420					425					430			
104	Asn	Lys	Thr	Ala	Thr	Leu	His	Ser	Pro	Tyr	Thr	Phe	Asn	Ala	Phe	Thr	
105				435				440					445				
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108				450				455					460				
110	Cys	Val	Thr	Gly	Val	Tyr	Thr	Asp	Pro	Tyr	Pro	Leu	Ile	Phe	Tyr	Arg	
111	465					470					475					480	
113	Asn	His	Thr	Leu	Arg	Gly	Val	Phe	Gly	Thr	Met	Leu	Asp	Ser	Glu	Gln	
114					485					490					495		
116	Ala	Arg	Leu	Asn	Pro	Ala	Ser	Ala	Val	Phe	Asp	Ser	Thr	Ser	Arg	Ser	
117				500					505					510			
119	Arg	Ile	Thr	Arg	Val	Ser	Ser	Ser	Ser	Thr	Lys	Ala	Ala	Tyr	Thr	Thr	
120				515				520					525				
122	Ser	Thr	Cys	Phe	Lys	Val	Val	Lys	Thr	Asn	Lys	Thr	Tyr	Cys	Leu	Ser	
123				530				535					540				
125	Ile	Ala	Glu	Ile	Ser	Asn	Thr	Leu	Phe	Gly	Glu	Phe	Arg	Ile	Val	Pro	
126	545					550					555					560	
128	Leu	Leu	Val	Glu	Ile	Leu	Lys	Asn	Asp	Gly	Val	Arg	Glu	Ala	Arg	Ser	
129					565					570					575		
131	Gly																

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/915,515A

DATE: 01/04/2002

TIME: 15:10:07

Input Set : A:\seq.txt

Output Set: N:\CRF3\01042002\I915515A.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date